

# **FORMER WORKERS HEALTH SCREENING PROGRAM**

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**A PROGRESS REPORT:  
FIVE YEARS OF INNOVATION  
AND SUCCESS**

# ***FORMER WORKERS HEALTH SCREENING PROGRAM***

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*“And I think for one time in my life, I believe DOE is trying to do something.” Testimony from Mr. S given in Las Vegas on February 25, 2000*

- The FWP was created in 1993 in response to the Congressional passage of Public Law 102.
- Section 3162 of this law required DOE to evaluate the long-range health conditions of current and former employees who, as a result of their employment at DOE sites, may be at significant risk for health problems.
- Goal has been to provide former workers with medical evaluations to determine whether workers have experienced significant risk due to workplace exposure to hazards.
- This determination has been made through twelve pilot programs established at eleven DOE sites across the country.

# Five Years of the FWP: Accomplishments

- A large percentage of the participants have significant health problems that can be ascribed to their work at the DOE sites.
- Workers have experienced a high prevalence of exposure to multiple hazards while working at DOE sites.
- The FWP's have comprehensively summarized work hazards for site worker populations.
- It is possible to locate and contact many of the former workers from these DOE sites.
- A significant proportion of the workers want to participate.
- Participants in the program have expressed a very high degree of satisfaction with the services provided.
- The approach to organizing these programs is highly cost effective in comparison to other medical programs within the DOE complex.

Site	Program Title	Year Started
<b>Amchitka Island</b>	Amchitka Workers Medical Surveillance Program	1999
<b>Burlington Atomic Energy Commission Plant</b>	Burlington Atomic Energy Commission Plant Former Worker Program	1999
<b>Gaseous Diffusion Plants</b>		1996
(Portsmouth, Paducah, K-25)		
<b>Hanford</b>	Hanford Building Trades Medical Screening Program ( <b>construction</b> )	1996
<b>Hanford</b>	Medical Screening Program for Production Workers ( <b>production</b> )	1996
<b>INEEL</b>	Medical Surveillance for Former Idaho Falls, Idaho Workers	1998
<b>Los Alamos National Lab</b>	Medical Examination Program for Former LANL Workers	1997
<b>Nevada Test Site</b>	Medical Surveillance for Former Department of Energy Workers at the Nevada Test Site	1996
<b>Oak Ridge</b>	Oak Ridge/Knoxville Building Trades Medical Screening Program	1996
<b>Rocky Flats</b>	Rocky Flats Former Worker Medical Screening Program	1996
<b>Savannah River Site</b>	Augusta Building Trades Medical Screening Program for the Savannah River Site ( <b>construction</b> )	1997
<b>Savannah River Site</b>	Savannah River Site Former Production Workers Medical Surveillance Program ( <b>production</b> )	1997

# Work/Program Objectives

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- 1. Identify and locate** former workers who are at significant risk;
- 2. Ascertain the health concerns** of former workers;
- 3. Communicate risk information** to former workers regarding the nature of their health risks and discuss the possible actions taken;
- 4. Provide medical screenings** based on exposure history, availability of acceptable screening tests;

# Work/Program Objectives

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5. **Assist in coordinating** referrals, diagnostic work up, and follow up treatment, including coordinating workers' compensation and other existing insurance and benefits programs;
6. **Ensure dialogue** with local parties concerned with the project;
7. **Evaluate satisfaction** former workers with the project; and
8. **Share information** on ongoing screening programs

# Size of Populations: At Risk, Participants Screened

<b>Program</b>	<b>Year Started</b>	<b><u>Pop At Risk</u>[1]</b>	<b>Completed screening exam</b>
Amchitka	1999	3,000	79
Burlington	1999	1,300	0 #
Gaseous Diffusion Plants	1996	7,500	3,237
Hanford Construction	1996	30,000	1,231
Hanford Production	1996	75,000	819
INEEL	1998	9,500	598
Los Alamos	1997	38,000	804
Nevada Test Site	1996	15,000	1,826
Oak Ridge Building Trades	1996	8,000	863
Rocky Flats	1996	3,000	493
Savannah River Construction	1997	37,000	1,059
Savannah River Production	1997	24,000	602
		251,300	11,611 *



# Services Provided to Participants

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- **Risk determination**
- **Notification.**
- **Outreach.**
- **Medical screening using multiple delivery systems.**
- **Worker Education and Assistance with Medical Follow-Up.**

# Risk determination

- Risk is estimated based on exposure information and confirmed through medical examinations.
- The exposure information obtained from two sources:
  - a characterization of the populations based on data collected from the site records and archives, and
  - work histories provided by individual participants.
- Characterization of risk from site data works best for production worker populations.
- Work history interview is essential to collect exposure information on construction and maintenance workers.

# Notification

- Detailed, time-consuming, detailed and custom designed to meet the needs of each site.
- Three main components:
  - First, we assemble rosters of Former Workers, which is a list of name, worker identification number, and/or social security number.
  - Second, we determine who is still alive (SSA), and
  - Obtain addresses and send information.
- Where list don't exist, pension fund lists and outreach used (Building and Construction Trades)

# Notification (2)

- Notification lists are primarily developed using data from site records as well as records provided by unions and employers.
- To locate participant, also using local telephone books, internet resources, Trans Union *Trace and Retrace* and state drivers licensee databases.
  - these data sources, however, pose the problem of obsolete addresses and a relatively high rate of returned mail.

# Notification/Response

	Attempted to contact by mail	Responded
Amchitka	1,113	340
Burlington Iowa	400	N/A
GDP-PACE	4,366	3481
Hanf-Construction	28,654	3471
Hanf-Production	64,612	12,776
INEEL-PACE	811	625
LANL	8,095	1,762
NTS	5,367	2,532
OR-Construction	16,600	6,412
Rocky Flats	6,178	1,676
SRS Construction	9,567	2,036
SRS-Production	3,385	1,032
Total	135,508	35,803
%		24%

# Outreach

- Each program conducts various kinds of community outreach efforts, which lead to participants contacting the program directly or learning about it through “word of mouth.”
  - About one third of participants in most programs have learned about the programs through the outreach activities.
- Activities include contacting local unions and retiree groups, attending community meetings and other functions, making presentations to various local health, retiree and worker groups and clubs, and communicating on a regular and ongoing basis with the site administrations, employers, and unions.

# Outreach

- The most effective means has been TV and newspaper coverage.
- At Portsmouth, Ohio site, the program coordinator arranged for the video “The Job Your Country Needed” to be screened on the local PBS station.
  - This video was made by FOF Communications with DOE support
- Outreach requires staffing a toll-free phone, getting interested parties to use the 800 number and having an outreach office in the community.
- Importantly, having an outreach office signifies stability and commitment to the population that is served.

# Medical screening using multiple delivery systems.

- Two part process:
  - taking work histories to determine exposure risk and
  - conducting a medical screening exam to determine whether workers with exposure risk have experienced any resultant health problems.
- The work histories are either done by self-administered questionnaire, or they are conducted by an interviewer using a structured survey questionnaire.
- Little work history or exposure information is available for workers who were engaged in either construction or maintenance.
  - The interview is used for this population with complex exposures, intermittent employment and many different employers.



# Service Delivery Mechanisms (1)

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- Most programs contract with community medical providers (clinics, hospital outpatient departments, etc.) who use standardized protocols.
- Projects select only sites staffed with occupational health physicians who are board-certified in occupational or pulmonary medicine.
- In addition, providers are credentialed including: confirmation and proof of licensure; graduation from an accredited medical school; board certification; review of disciplinary actions, etc.

# Service Delivery Mechanisms (2)

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- Use intensive examination periods (quarterly) in which medical teams examine a large number of workers (roughly 150-190) over a three to five day period.
- Physicians are from University-based occupational medicine programs.
- Work with and integrate local providers into screening program.
- Establish follow-up care arrangements with community providers.

# Screening Protocols

Hazard	Target Organ	Health Outcome	Medical Evaluation
<b>Asbestos</b>	Lungs	Asbestosis	Spirometry
	Gastro- Instestinal Tract	Cancer	Chest x-ray with B-read
			Stool occult blood
			Physical exam
<b>Beryllium</b>	Lungs	Beryllium Sensitivity	Beryllium Test (BeLPT)
		Chronic Beryllium Disease	Spirometry
			Chest x-ray with B-read
			Physical exam
			Clinical evaluation of CBD for BeLPT positives
<b>Ionizing Radiation</b>	Thyroid	Cancers	Complete blood count w/ differential
	Lymphatopoietic	Thyroid Cancer	Thyroid Examination
		Lung Cancer (Internal Doses)	Chest x-ray

# Screening Protocols (2)

<b>Heavy Metals</b> (cadmium, chromium, lead, mercury)	Kidneys	Neurologic Diseases	Urine or blood tests
	Liver	Kidney disease	Physical exam
	Nervous system	Liver disease	Chest x-ray
	Lungs	Cancer	
<b>Noise</b>	Ears	Noise Induced Hearing Loss	Audiometry
<b>Silica</b>	Lungs	Silicosis	Spirometry
			Chest x-ray with B-read
			Physical exam
<b>Solvents</b>	Kidneys	Neurologic Diseases	Blood test
	Liver	Kidney failure	Complete Blood count with differential
	Nervous system	Liver disease	Physical exam
	Hemato-poietic system	Cancer	
		Hematopoietic Cancers	
<b>Welding</b>	Lungs	Chronic obstructive lung disease	Chest x-ray Spirometry
		Cancer	Physical exam

# Program Findings Solidly Document Need to Continue and Expand FWP

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“Los Alamos, the government, they are all responsible for everybody’s health, everybody that worked there. These people need answers. And like you’ve heard before, it not only affects their generation, it affects our generations and many generations to come and hopefully something good will become of this...”

Testimony from Ms. M. given at LANL, March 18, 2000

# Significant Program Findings

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- The Former Worker Programs have clearly determined that they are needed and should be extended to all DOE workers on all sites who worked during the era of nuclear weapons testing and production.
- Workers have reported a high prevalence of exposures to multiple toxic substances during their work at DOE sites.
- 80-95% of participants think they have been exposed to serious hazards or think their health has been damaged.
- Medical evidence, results from participant satisfaction surveys, anecdotal information and attendance at our public information sessions all support continuance and expansion of the program.

# Significant Program Findings (2)

	Total Chest radiographs performed	Parenchymal Abnormalities only	Pleural abnormalities only	Parenchymal and pleural abnormalities
Amchitka				
Burlington IOWA	0	0	0	0
GDP-PACE	2468	111	226	32
Hanf- Construction	768	16	303	35
Hanf-Production	754	33	230	58
INEEL-PACE	368	5	77	9
LANL	570	17	34	10
NTS	1630	105	124	17
OR- Construction	515	10	63	17
Rocky Flats	335	13	1	33
SRS Construction	755	17	73	17
SRS-Production	459	40	54	31
Total	8622	367	1185	259
%		4.3 (367/8622)	13.7 (1185/8622)	3 (259/8622)

# Significant Program Findings (3)

	Total Performed	Restrictive Pattern	Obstructive Pattern	Mixed Pattern
Amchitka	0	0	0	0
Burlington IOWA	0	0	0	0
GDP-PACE	2587	501	333	182
Hanf-Construction	802	93	144	97
Hanf-Production	749	152	104	71
INEEL-PACE	466	98	16	20
LANL	528	76	19	18
NTS	1629	301	702	186
OR- Construction	543	171	46	64
Rocky Flats	191	77	56	59
SRS Construction	809	175	76	61
SRS-Production	256	74	17	31
Total	8560	1718	1705	789
%		20.1 (1718/8560)	19.9 (1705/8560)	9.2 (789/8560)



# Significant Program Findings (4)

	<a href="#">Total number of beryllium screening exams (including repeat Be-LPTs )</a> [1]	Number of participants who received one or more beryllium screening exams	Single Be-LPT-positive participants	<a href="#">Confirmed Be-LPT-positive participants</a> [2]	Be-LPT-positive participants who have completed clinical evaluation for CBD	Participants with diagnosed CBD
Amchitka						
Burlington IOWA						
GDP-PACE	1302	1287	69	23	10	1
Hanf-Construction	944	886	36	15	7	1
Hanf-Production	557	540	31	7	10	0
INEEL-PACE	565	561	39	4	0	0
LANL	699	624	29	9	2	0
NTS	94	94	1			
OR-Construction	812	732	18	12	2	0
Rocky Flats						
SRS Construction	971	897	19	11	6	0
SRS-Production	396	364	3	5	2	0
Total	6340	5985	245	86	29	2
%			4.1 (245/5985)	1.4 (86/5985)	0.6 (39/5985)	0.03 (2/5985)

# Significant Program Findings (5)

	Workers who received audiograms	<u>Workers found to have material hearing impairment[1]</u>
Amchitka		
Burlington IOWA		
GDP-PACE	2272	1481
Hanf-Construction	356	278
Hanf-Production	563	314
INEEL-PACE	285	203
LANL	721	537
NTS	1487	1347
OR- Construction	381	300
Rocky Flats	486	449
SRS Construction	794	364
SRS-Production	355	270
Total	7700	5543
%		72

# Participants Report High Levels of Satisfaction with Program

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“...I just wanted to say I appreciate the fact that after thirty years something is finally being done for our men, for our daddies, for many of your husbands, for grandchildren who never knew their grandfathers, because they were defending our country in a sense...But I would just like to thank Dr.Michaels and his staff for what they can do for those of us who are left...I just wanted to say thank you for coming, thank you for showing the interest in us.”

Testimony from Ms. M given at Savannah River Site on December 7,2000

# Participants Report High Levels of Satisfaction with Program (2)

- Data on participant response to the programs show high levels of satisfaction with both medical screening programs and services provided.
- While each of the programs conducts satisfaction surveys in somewhat different ways, the results are very similar across the programs.
- The vast majority of participants are very satisfied with the programs in general, the services they receive, the quality of the personnel, and the timeliness of service delivery.

# Reported Satisfaction by Participants

Program	Year Started	Percent of Those Responding		
		High (good to excellent)	Medium (fair)	Low (poor)
Hanford Construction	1996	78%	21%	1%
Nevada Test Site	1996	93%	6%	1%
Oak Ridge Building Trades	1996	72%	25%	3%
Hanford Production	1997	85%	6%	3%
Savannah River Construction	1997	79%	20%	1%
Savannah River Production	1997	82%		18%

# **Program Success Includes Many Value-Added Benefits**

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- **A Highly Regarded National Network**
- **Advances in Service Delivery**
  - **Notification**
  - **Medical Exams**
  - **Assistance with Follow-up**
  - **Assistance with Workers Compensation**
- **Increased Awareness of Safety and Health**
  - **Better Protection for Current Workers**
  - **Better Compensation for Injured Workers**
  - **Peace of Mind for Workers without Detected Health Conditions**

# Program Success Includes Many Value-Added Benefits (2)

- **Improved Standard for DOE's Interactions with Human Subjects**
- **Improved Perception of DOE**

“You have got to stop the old DOE propaganda. You have got to stop the old DOE from saying that it's all in our heads. We have been harmed. We were used as an experiment without consent or knowledge, and abused and thrown completely away, and we have been forgotten...”

Ms. S Testimony given at Hanford, February 3, 2000